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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/037,560 | 01/04/2002 | Eyal Dotan | 8221-84872 | 7101 |
| 41744 | 7590 | 06/08/2005 | EXAMINER | |
| TRANSPACIFIC LAW GROUP 617 NORTH DELAWARE STREET SAN MATEO, CA 94401 | | | HOFFMAN, BRANDON S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2136 | |

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/037,560

Applicant(s)

DOTAN, EYAL

Examiner

Brandon S. Hoffman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 19, 21 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 19, 21 and 23-26 is/are rejected.
- 7) ☒ Claim(s) 23-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. Claims 2, 5, 19, and 21 designate an 'amended' status even though the claims were not amended. Also, when claims are canceled, the limitations of the claims are not supposed to be with the claim number. For example, "22. (canceled)." There should be no limitations after the period.
2. Claims 1-16, 19, 21, and 23-26 are pending in this action, claims 17, 18, 20, and 22 are canceled and claims 23-26 are newly added.
3. Applicant's arguments, filed April 23, 2005, with respect to claims 1-16, 19, 21, and 23-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

4. Claims 23-26 are objected to because of the following informalities: claim 23 labels the 'read only memory' as RAM, even though it is well known in the art that RAM is a random access memory, which is volatile. Examiner is treating limitation 1 of claim 23 as a random access memory. Claims 24-26 depend from claim 23 and therefore inherit its deficiencies. Appropriate correction is required.

Rejections

5. The text of those sections of Title 35, U.S. Code that are not included in this rejection can be found in a prior Office action.

Claim Rejections - 35 USC § 103

6. Claims 1-16, 19, 21, and 23-26 are rejected under 35 U.S.C. 102(a) as being unpatentable over Munroe et al. (U.S. Patent No. 5,280,614) in view of Colburn et al. (U.S. Patent No. 6,173,404).

Regarding claims 1 and 13, Munroe et al. teaches a process/computer-readable medium for protecting a computer from hostile code, the process comprising:

- Identifying objects and processes within the computer (col. 6, lines 31-34);
- Defining at least two trust groups, each of the defined trust groups being characterized by a trust group value (col. 5, lines 33-49 and fig. 3); and
- Assigning objects and processes in the computer to one of said trust groups, irrespective of the rights of a user of said computer (col. 5, line 50 through col. 6, line 21).

Munroe et al. does not teach **defining at least two object types; assigning an object type to each of the objects; defining an action rule for each combination of process trust group value, object trust group value, and object type; and performing the action indicated by the action rule applicable to the trust group value of the requesting process, the trust group value of the target object, and the object type.**

Colburn et al. teaches **defining at least two object types; assigning an object type to each of the objects** (fig. 3 and col. 5, line 65 through col. 6, line 28); and **defining an action rule for each combination of process trust group value, object trust group value, and object type** (TABLE 1 and 2, col. 9, line 1 through col. 10, line 5); and **performing the action indicated by the action rule applicable to the trust group value of the requesting process, the trust group value of the target object, and the object type** (col. 10, lines 6-14).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine **defining object types, assigning object types to each object, defining an action rule for each combination of process trust group value, object trust group value, and object type; and performing the action indicated by the action rule based on the trust group value of the requesting process, the trust group value of the target object, and the object type**, as taught by Colburn et al., with the process/medium of Munroe et al. It would have been obvious for such modifications because these features provide various security levels for different object (see col. 10, lines 6-14 of Colburn et al.). See also col. 7, lines 1-14 of Munroe et al.

Regarding claim 2, Munroe et al. as modified by Colburn et al. teaches wherein a process is assigned upon creation to the trust group assigned to the passive code from which the process is created (see col. 6, lines 43-64 of Munroe et al.).

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Regarding claim 3, Munroe et al. as modified by Colburn et al. teaches further comprising changing the trust group of the process if the trust group value of the process is greater than the trust group **value** of the object (see col. 6, lines 34-36 of Munroe et al.).

Regarding claim 4, Munroe et al. as modified by Colburn et al. teaches further comprising changing the trust group of said object after **performing** said **action** (see col. 6, lines 34-36 of Munroe et al.).

Regarding claim 5, Munroe et al. as modified by Colburn et al. teaches further comprising, upon creation of an object by a process, assigning said created object to the trust group of said process (see col. 6, lines 43-64 of Munroe et al.).

Regarding claim 6, Munroe et al. as modified by Colburn et al. teaches further comprising **defining at least two operation types and wherein said combination includes at least one of said operation types** (see col. 10, lines 44-46 of Colburn et al.).

Regarding claim 7, Munroe et al. as modified by Colburn et al. teaches wherein said trust groups are hierarchically ordered (see col. 5, lines 33-35 of Munroe et al.), and wherein said **process** further comprises allowing said **access request** when the

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trust group of said process is higher or equal in said hierarchy than the trust group of said object (see col. 8, lines 4-24 of Munroe et al.).

Regarding claim 8, Munroe et al. as modified by Colburn et al. teaches further comprising assigning said process to the trust group of said object **if the trust group of said process is higher than the trust group of said object** (see col. 5, line 50 through col. 6, line 21 and col. 6, lines 43-64 of Munroe et al.).

Regarding claim 9, Munroe et al. as modified by Colburn et al. teaches **wherein upon a restart of said process, the trust group of said process reverts to the original trust group of the object from which the process was created** (see col. 15, lines 46-58 of Colburn et al.).

Regarding claim 10, Munroe et al. as modified by Colburn et al. teaches further comprising:

- Defining at least two **process** types (see col. 5, line 50 through col. 6, line 21 of Munroe et al.);
- Assigning processes to one of said **process** types (see col. 5, line 50 through col. 6, line 21 of Munroe et al.); and
- Wherein **said combination includes at least one of said process types** (see col. 10, lines 6-14 of Colburn et al.).

Regarding claims 11 and 16, official notice is taken that **wherein said object types comprise passive code and executable code**. By definition of passive code and executable code, i.e., passive code being code that is not executed yet, and executable code being code that is in the process of executing—typical computers have both running and idle programs at any given time. Therefore, there exists passive code and executable code as object types.

Regarding claims 12 and 15, Munroe et al. as modified by Colburn et al. teaches **wherein said operation types comprise open, read, create, modify, and delete** (see col. 10, lines 44-46 of Colburn et al.).

Regarding claim 14, Munroe et al. as modified by Colburn et al. teaches further comprising instructions causing the computer to:

- Define a table of types of at least two types of objects, the objects in the computer being assigned one type (see fig. 3 and col. 5, line 65 through col. 6, line 28 of Colburn et al.); and
- Wherein **said plurality of rules defines said actions further based on the type of said object** (see col. 10, lines 6-14 of Colburn et al.).

Regarding claims 19 and 21, official notice is taken that the computer is operatively coupled to a network, the network including a server, the table of trust groups/rules is stored in said server because Munroe et al. mentions mainframe

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computers as a source target for his invention. Mainframe computers are connected to clients, this making the mainframe a server. It would have been obvious to store tables on the server because the server remains on, while individual terminals may turn off and on periodically. The stored tables would be lost if the tables were stored on a terminal, instead of the server.

Regarding claim 23, Munroe et al. teaches a computer comprising:

- A random access memory (fig. 1, ref. num 110);
- A non-volatile memory (fig. 1, ref. num 122/123);
- A processor coupled to said RAM and said non-volatile memory (fig. 1, ref. num 100);
- Wherein said non-volatile memory comprises:
 - A list of object trust groups, each trust group defining an object trust value and coupled to at least one of said rules (col. 5, lines 33-49 and fig. 3);
 - A plurality of objects, each of said objects having an object type and assigned to one of said trust groups (col. 6, lines 31-34); and
- Wherein when a process is created in said RAM from an originating object of one of said objects, said processor assigns to said process a process trust value equal to the object trust value of said originating object (col. 6, lines 62-68).

Munroe et al. does not teach **a list of object types and a list of rules, each rule defining an action based on an object type.**

Colburn et al. teaches **a list of object types** (fig. 3 and col. 5, line 65 through col. 6, line 28) and **a list of rules, each rule defining an action based on an object type** (TABLE 1 and 2, col. 9, line 1 through col. 10, line 5).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine **a list of object types and a list of rules, each rule defining an action based on an object type**, as taught by Colburn et al., with the computer of Munroe et al. It would have been obvious for such modifications because these features provide various security levels for different object (see col. 10, lines 6-14 of Colburn et al.). See also col. 7, lines 1-14 of Munroe et al.

Regarding claim 24, Munroe et al. as modified by Colburn et al. teaches further comprising a controller receiving operation requests from said process to be performed on a target object of one of said objects and, upon receiving said requests said controller access said list of object trust groups, list of rules, and list of object type to determine whether to allow the operation (see TABLE 1 and 2, col. 9, line 1 through col. 10, line 5 of Colburn et al.).

Regarding claim 25, Munroe et al. as modified by Colburn et al. teaches wherein when the process trust value is not lower than the target object trust value, said controller allows said operation request (see fig. 5, ref. num 504 of Munroe et al.).

Regarding claim 26, Munroe et al. as modified by Colburn et al. teaches wherein the controller allows the operation request but the process trust value is lower than the target object trust value, said processor resets the process trust value equal to that of the target object trust value (see col. 8, lines 5-15 of Colburn et al., dynamic inheritance allows objects to be change dynamically).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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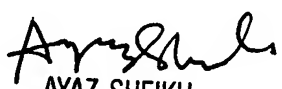
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon S. Hoffman whose telephone number is 571-272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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